

# Jess G Snedeker

## List of Publications by Year in descending order

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154  
papers

5,736  
citations

81743

39  
h-index

102304

66  
g-index

161  
all docs

161  
docs citations

161  
times ranked

6701  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical feedback control loop for the precise and robust acoustic focusing of cells, micro- and nanoparticles. Lab on A Chip, 2022, 22, 2810-2819.	3.1	3
2	Cross-links in posterior pedicle screw-rod instrumentation of the spine: a systematic review on mechanical, biomechanical, numerical and clinical studies. European Spine Journal, 2021, 30, 34-49.	1.0	21
3	HoloYolo: A proof-of-concept study for markerless surgical navigation of spinal rod implants with augmented reality and on-device machine learning. International Journal of Medical Robotics and Computer Assisted Surgery, 2021, 17, 1-10.	1.2	27
4	Patellofemoral instability in trochleodysplastic knee joints and the quantitative influence of simulated trochleoplasty – A finite element simulation. Clinical Biomechanics, 2021, 81, 105216.	0.5	12
5	Load-induced regulation of tendon homeostasis by SPARC, a genetic predisposition factor for tendon and ligament injuries. Science Translational Medicine, 2021, 13, .	5.8	25
6	Inhibition of ERK 1/2 kinases prevents tendon matrix breakdown. Scientific Reports, 2021, 11, 6838.	1.6	9
7	Shear-stress sensing by PIEZO1 regulates tendon stiffness in rodents and influences jumping performance in humans. Nature Biomedical Engineering, 2021, 5, 1457-1471.	11.6	54
8	Is a cross-connector beneficial for single level traditional or cortical bone trajectory pedicle screw instrumentation?. PLoS ONE, 2021, 16, e0253076.	1.1	5
9	Intervertebral disc degeneration relates to biomechanical changes of spinal ligaments. Spine Journal, 2021, 21, 1399-1407.	0.6	17
10	Extrinsic Macrophages Protect While Tendon Progenitors Degrade: Insights from a Tissue Engineered Model of Tendon Compartmental Crosstalk. Advanced Healthcare Materials, 2021, 10, e2100741.	3.9	11
11	Hydrostatic integrity of the intervertebral disc assessed by MRI. Journal of Biomechanics, 2021, 127, 110661.	0.9	2
12	Tendon tissue microdamage and the limits of intrinsic repair. Matrix Biology, 2020, 85-86, 68-79.	1.5	30
13	An automatic genetic algorithm framework for the optimization of three-dimensional surgical plans of forearm corrective osteotomies. Medical Image Analysis, 2020, 60, 101598.	7.0	18
14	3D printed clamps improve spine specimen fixation in biomechanical testing. Journal of Biomechanics, 2020, 98, 109467.	0.9	14
15	Tendon response to matrix unloading is determined by the patho-physiological niche. Matrix Biology, 2020, 89, 11-26.	1.5	36
16	Individualized prediction of pedicle screw fixation strength with a finite element model. Computer Methods in Biomechanics and Biomedical Engineering, 2020, 23, 155-167.	0.9	17
17	Elastic and surgeon friendly electrospun tubes delivering PDGF-BB positively impact tendon rupture healing in a rabbit Achilles tendon model. Biomaterials, 2020, 232, 119722.	5.7	46
18	Exploring the Role of Osteosarcoma-Derived Extracellular Vesicles in Pre-Metastatic Niche Formation and Metastasis in the 143-B Xenograft Mouse Osteosarcoma Model. Cancers, 2020, 12, 3457.	1.7	22

#	ARTICLE	IF	CITATIONS
19	TRPV4 Inhibition and CRISPR-Cas9 Knockout Reduce Inflammation Induced by Hyperphysiological Stretching in Human Annulus Fibrosus Cells. <i>Cells</i> , 2020, 9, 1736.	1.8	20
20	Osteosarcoma-Derived Extracellular Vesicles Induce Lung Fibroblast Reprogramming. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5451.	1.8	34
21	Biomechanical contribution of spinal structures to stability of the lumbar spine—novel biomechanical insights. <i>Spine Journal</i> , 2020, 20, 1705-1716.	0.6	51
22	Digitalization of the IOM: A comprehensive cadaveric study for obtaining three-dimensional models and morphological properties of the forearm's interosseous membrane. <i>Scientific Reports</i> , 2020, 10, 6401.	1.6	3
23	Serum deprivation limits loss and promotes recovery of tenogenic phenotype in tendon cell culture systems. <i>Journal of Orthopaedic Research</i> , 2020, 39, 1561-1571.	1.2	17
24	Dynamic knee valgus in competitive alpine skiers: Observation from youth to elite and influence of biological maturation. <i>Scandinavian Journal of Medicine and Science in Sports</i> , 2020, 30, 1212-1220.	1.3	14
25	Biomechanical Evaluation of a Novel Loop Retention Mechanism for Cortical Graft Fixation in ACL Reconstruction. <i>Orthopaedic Journal of Sports Medicine</i> , 2020, 8, 232596712090432.	0.8	4
26	Extracellular Matrix Production by Mesenchymal Stromal Cells in Hydrogels Facilitates Cell Spreading and Is Inhibited by FGF-2. <i>Advanced Healthcare Materials</i> , 2020, 9, 1901669.	3.9	31
27	Mechanical evaluation of electrospun poly( $\mu$ -caprolactone) single fibers. <i>Materials Today Communications</i> , 2020, 24, 101211.	0.9	13
28	Biomechanical quantification of deadbug bridging performance in competitive alpine skiers: Reliability, reference values, and associations with skiing performance and back overuse complaints. <i>Physical Therapy in Sport</i> , 2020, 45, 56-62.	0.8	8
29	Spinal sagittal alignment goals based on statistical modelling and musculoskeletal simulations. <i>Journal of Biomechanics</i> , 2020, 102, 109621.	0.9	6
30	Tendon explant models for physiologically relevant <i>in vitro</i> study of tissue biology—a perspective. <i>Connective Tissue Research</i> , 2020, 61, 262-277.	1.1	34
31	Biomechanical comparison of the use of different surgical suture techniques for continuous loop tendon grafts preparation. <i>Scientific Reports</i> , 2020, 10, 538.	1.6	2
32	The miR-143/145 Cluster, a Novel Diagnostic Biomarker in Chondrosarcoma, Acts as a Tumor Suppressor and Directly Inhibits Fascin-1. <i>Journal of Bone and Mineral Research</i> , 2020, 35, 1077-1091.	3.1	25
33	Macromechanics and polycaprolactone fiber organization drive macrophage polarization and regulate inflammatory activation of tendon <i>in vitro</i> and <i>in vivo</i> . <i>Biomaterials</i> , 2020, 249, 120034.	5.7	71
34	Assessing the effects of intratendinous genipin injections: Mechanical augmentation and spatial distribution in an <i>ex vivo</i> degenerative tendon model. <i>PLoS ONE</i> , 2020, 15, e0231619.	1.1	6
35	The Protein Mat(ers)—Revealing the Biologically Relevant Mechanical Contribution of Collagen- and Fibronectin-Coated Micropatterns. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 41791-41798.	4.0	4
36	Fascin-1 enhances experimental osteosarcoma tumor formation and metastasis and is related to poor patient outcome. <i>BMC Cancer</i> , 2019, 19, 83.	1.1	23

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37	Pedicle screw navigation using surface digitization on the Microsoft HoloLens. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2019, 14, 1157-1165.	1.7	118
38	Simulation and evaluation of 3D traction force microscopy. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2019, 22, 853-860.	0.9	8
39	Kinematics of the Spine Under Healthy and Degenerative Conditions: A Systematic Review. <i>Annals of Biomedical Engineering</i> , 2019, 47, 1491-1522.	1.3	31
40	The relationship between metastatic potential and in vitro mechanical properties of osteosarcoma cells. <i>Molecular Biology of the Cell</i> , 2019, 30, 887-898.	0.9	39
41	Biomechanical comparison of two biplanar and one monoplanar reconstruction techniques of the acromioclavicular joint. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2019, 139, 779-786.	1.3	16
42	T1- and T2*-Mapping for Assessment of Tendon Tissue Biophysical Properties. <i>Investigative Radiology</i> , 2019, 54, 212-220.	3.5	14
43	Mesenchymal stromal cell activation by breast cancer secretomes in bioengineered 3D microenvironments. <i>Life Science Alliance</i> , 2019, 2, e201900304.	1.3	37
44	Pedicle screw augmentation with bone cement enforced Vicryl mesh. <i>Journal of Orthopaedic Research</i> , 2018, 36, 212-216.	1.2	5
45	Biomaterial surface energy-driven ligand assembly strongly regulates stem cell mechanosensitivity and fate on very soft substrates. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 4631-4636.	3.3	57
46	Sensitivity of intervertebral joint forces to center of rotation location and trends along its migration path. <i>Journal of Biomechanics</i> , 2018, 70, 140-148.	0.9	16
47	Substrate fiber alignment mediates tendon cell response to inflammatory signaling. <i>Acta Biomaterialia</i> , 2018, 71, 306-317.	4.1	70
48	Tissue alignment enhances remodeling potential of tendon-derived cells - Lessons from a novel microtissue model of tendon scarring. <i>Matrix Biology</i> , 2018, 65, 14-29.	1.5	38
49	Minimal mechanical load and tissue culture conditions preserve native cell phenotype and morphology in tendon—a novel ex vivo mouse explant model. <i>Journal of Orthopaedic Research</i> , 2018, 36, 1383-1390.	1.2	28
50	Feasibility of the annulus fibrosus repair with in situ gelating hydrogels — A biomechanical study. <i>PLoS ONE</i> , 2018, 13, e0208460.	1.1	22
51	The lever arm ratio of the rotator cuff to deltoid muscle explains and predicts pseudoparalysis of the shoulder. <i>Bone and Joint Journal</i> , 2018, 100-B, 1600-1608.	1.9	10
52	Optimizing controlled laser cutting of hard tissue (bone). <i>Automatisierungstechnik</i> , 2018, 66, 1072-1082.	0.4	12
53	Ultrasound-Mediated Gene Delivery Enhances Tendon Allograft Integration in Mini-Pig Ligament Reconstruction. <i>Molecular Therapy</i> , 2018, 26, 1746-1755.	3.7	28
54	Notch—inducing hydrogels reveal a perivascular switch of mesenchymal stem cell fate. <i>EMBO Reports</i> , 2018, 19, .	2.0	43

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55	Can Genipin-coated Sutures Deliver a Collagen Crosslinking Agent to Improve Suture Pullout in Degenerated Tendon? An Ex Vivo Animal Study. <i>Clinical Orthopaedics and Related Research</i> , 2018, 476, 1104-1113.	0.7	10
56	Incorporating BMP-2 and skeletal muscle to a semitendinosus autograft in an oversized tunnel yields robust bone tunnel ossification in rabbits: Toward single-step revision of failed anterior cruciate ligament reconstruction. <i>Knee</i> , 2018, 25, 765-773.	0.8	7
57	High-resolution traction force microscopy on small focal adhesions - improved accuracy through optimal marker distribution and optical flow tracking. <i>Scientific Reports</i> , 2017, 7, 41633.	1.6	38
58	Pull-out strength of patient-specific template-guided vs. free-hand fluoroscopically controlled thoracolumbar pedicle screws: a biomechanical analysis of a randomized cadaveric study. <i>European Spine Journal</i> , 2017, 26, 2865-2872.	1.0	11
59	A Time Saver: Optimization Approach for the Fully Automatic 3D Planning of Forearm Osteotomies. <i>Lecture Notes in Computer Science</i> , 2017, , 488-496.	1.0	7
60	Tendon injury and repair – A perspective on the basic mechanisms of tendon disease and future clinical therapy. <i>Acta Biomaterialia</i> , 2017, 63, 18-36.	4.1	262
61	Fusion angle affects intervertebral adjacent spinal segment joint forces – Model-based analysis of patient specific alignment. <i>Journal of Orthopaedic Research</i> , 2017, 35, 131-139.	1.2	27
62	Advanced glycation end-products: Mechanics of aged collagen from molecule to tissue. <i>Matrix Biology</i> , 2017, 59, 95-108.	1.5	186
63	The influence of muscle-tendon forces on ACL loading during jump landing: a systematic review. <i>Muscles, Ligaments and Tendons Journal</i> , 2017, 7, 125.	0.1	7
64	Mechanical force induces mitochondrial fission. <i>ELife</i> , 2017, 6, .	2.8	125
65	A larger critical shoulder angle requires more rotator cuff activity to preserve joint stability. <i>Journal of Orthopaedic Research</i> , 2016, 34, 961-968.	1.2	64
66	Glenohumeral joint reaction forces increase with critical shoulder angles representative of osteoarthritis – A biomechanical analysis. <i>Journal of Orthopaedic Research</i> , 2016, 34, 1047-1052.	1.2	45
67	Two-month longitudinal study of mechanical properties of absorbable sutures used in orthopedic surgery. <i>Journal of Orthopaedic Surgery and Research</i> , 2016, 11, 111.	0.9	30
68	Tissue composition regulates distinct viscoelastic responses in auricular and articular cartilage. <i>Journal of Biomechanics</i> , 2016, 49, 344-352.	0.9	41
69	Macrophage Polarization by Titanium Dioxide (TiO <sub>2</sub> ) Particles: Size Matters. <i>ACS Biomaterials Science and Engineering</i> , 2016, 2, 908-919.	2.6	26
70	Comparison of shear wave velocity measurements assessed with two different ultrasound systems in an ex-vivo tendon strain phantom. <i>Skeletal Radiology</i> , 2016, 45, 1541-1551.	1.2	9
71	How High Glucose Levels Affect Tendon Homeostasis. <i>Advances in Experimental Medicine and Biology</i> , 2016, 920, 191-198.	0.8	4
72	Rabbit Achilles tendon full transection model – wound healing, adhesion formation and biomechanics at 3, 6 and 12 weeks post-surgery. <i>Biology Open</i> , 2016, 5, 1324-1333.	0.6	19

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73	Tendon Collagen Crosslinking Offers Potential to Improve Suture Pullout in Rotator Cuff Repair: An Ex Vivo Sheep Study. <i>Clinical Orthopaedics and Related Research</i> , 2016, 474, 1778-1785.	0.7	20
74	Surface-Driven Collagen Self-Assembly Affects Early Osteogenic Stem Cell Signaling. <i>Advanced Healthcare Materials</i> , 2016, 5, 1481-1492.	3.9	33
75	Intervertebral reaction force prediction using an enhanced assembly of OpenSim models. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2016, 19, 538-548.	0.9	42
76	Loading Patterns of the Posterior Cruciate Ligament in the Healthy Knee: A Systematic Review. <i>PLoS ONE</i> , 2016, 11, e0167106.	1.1	29
77	Easy and Accurate Mechano-profiling on Micropost Arrays. <i>Journal of Visualized Experiments</i> , 2015, , .	0.2	9
78	Effect of Angular Deformities of the Proximal Femur on Impingement-Free Hip Range of Motion in a Three-Dimensional Rigid Body Model. <i>HIP International</i> , 2015, 25, 574-580.	0.9	18
79	REGENERATION OF ANTERIOR CRUCIATE LIGAMENT WITH SILK-BASED SCAFFOLD IN PORCINE MODEL. <i>Journal of Mechanics in Medicine and Biology</i> , 2015, 15, 1550006.	0.3	2
80	Advanced Glycation End-Products Reduce Collagen Molecular Sliding to Affect Collagen Fibril Damage Mechanisms but Not Stiffness. <i>PLoS ONE</i> , 2014, 9, e110948.	1.1	113
81	A novel silk-TCP-PEEK construct for anterior cruciate ligament reconstruction: an off-the shelf alternative to a bone-tendon-bone autograft. <i>Biofabrication</i> , 2014, 6, 015010.	3.7	35
82	Prevention of Peritendinous Adhesions Using an Electrospun DegraPol Polymer Tube: A Histological, Ultrasonographic, and Biomechanical Study in Rabbits. <i>BioMed Research International</i> , 2014, 2014, 1-11.	0.9	27
83	The nuclear envelope as a mechanostat: a central cog in the machinery of cell and tissue regulation?. <i>BoneKey Reports</i> , 2014, 3, 562.	2.7	3
84	Biomechanical comparison of sagittal-parallel versus non-parallel pedicle screw placement. <i>Acta Neurochirurgica</i> , 2014, 156, 2147-2151.	0.9	7
85	Supraspinatus tendon load during abduction is dependent on the size of the critical shoulder angle: A biomechanical analysis. <i>Journal of Orthopaedic Research</i> , 2014, 32, 952-957.	1.2	185
86	Dose- and time-dependent effects of genipin crosslinking on cell viability and tissue mechanics – Toward clinical application for tendon repair. <i>Acta Biomaterialia</i> , 2014, 10, 1897-1906.	4.1	105
87	Pelvic incidence-lumbar lordosis mismatch results in increased segmental joint loads in the unfused and fused lumbar spine. <i>European Spine Journal</i> , 2014, 23, 1384-1393.	1.0	81
88	A novel silk-based artificial ligament and tricalcium phosphate/polyether ether ketone anchor for anterior cruciate ligament reconstruction – Safety and efficacy in a porcine model. <i>Acta Biomaterialia</i> , 2014, 10, 3696-3704.	4.1	34
89	Differences between the Cell Populations from the Peritenon and the Tendon Core with Regard to Their Potential Implication in Tendon Repair. <i>PLoS ONE</i> , 2014, 9, e92474.	1.1	61
90	Interference screws should be shorter than the hamstring tendon graft in the bone tunnel for best fixation. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2013, 21, 584-588.	2.3	7

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91	Tendon glycosaminoglycan proteoglycan sidechains promote collagen fibril slidingâ€”AFM observations at the nanoscale. <i>Journal of Biomechanics</i> , 2013, 46, 813-818.	0.9	102
92	Wired silk architectures provide a biomimetic ACL tissue engineering scaffold. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 22, 30-40.	1.5	32
93	Advanced glycation end-products diminish tendon collagen fiber sliding. <i>Matrix Biology</i> , 2013, 32, 169-177.	1.5	170
94	An actin length threshold regulates adhesion maturation at the lamellipodium/lamellum interface. <i>Integrative Biology (United Kingdom)</i> , 2013, 5, 865-876.	0.6	4
95	Endoscopic Functional Imaging of Partial Tendon Tearsâ€”Proof of Concept and Intraoperative Feasibility. <i>Journal of Biomechanical Engineering</i> , 2013, 135, 041007.	0.6	0
96	Further characterisation of an experimental model of tendinopathy in the horse. <i>Equine Veterinary Journal</i> , 2013, 45, 642-648.	0.9	28
97	Bioactive polyacrylamide hydrogels with gradients in mechanical stiffness. <i>Biotechnology and Bioengineering</i> , 2013, 110, 1508-1519.	1.7	26
98	Influence of Resection Geometry on Fracture Risk in the Treatment of Femoroacetabular Impingement. <i>American Journal of Sports Medicine</i> , 2012, 40, 2002-2008.	1.9	30
99	Biomaterial surface modifications can dominate cellâ€™substrate mechanics: the impact of PDMS plasma treatment on a quantitative assay of cell stiffness. <i>Soft Matter</i> , 2012, 8, 673-681.	1.2	59
100	An integrated model of active glenohumeral stability. <i>Journal of Biomechanics</i> , 2012, 45, 2248-2255.	0.9	49
101	Potential of collagen cross-linking therapies to mediate tendon mechanical properties. <i>Journal of Shoulder and Elbow Surgery</i> , 2012, 21, 209-217.	1.2	50
102	Numerically bridging lamellipodial and filopodial activity during cell spreading reveals a potentially novel trigger of focal adhesion maturation. <i>Integrative Biology (United Kingdom)</i> , 2012, 4, 508-521.	0.6	7
103	Contact pressure on ACL hamstring grafts in the bone tunnel with interference screw fixation â€” Dynamic adaptation under load. <i>Knee</i> , 2012, 19, 676-679.	0.8	11
104	Biomechanics of the Normal and Arthritic Ankle Joint. <i>Foot and Ankle Clinics</i> , 2012, 17, 517-528.	0.5	40
105	Detection of small tendon lesions by sonoelastographic visualization of strain profile differences: initial experiences. <i>Skeletal Radiology</i> , 2012, 41, 1073-1079.	1.2	12
106	Viscoelastic adaptation of tendon graft material to compression: biomechanical quantification of graft preconditioning. <i>Archives of Orthopaedic and Trauma Surgery</i> , 2012, 132, 1315-1320.	1.3	9
107	Exogenous collagen crossâ€™linking recovers tendon functional integrity in an experimental model of partial tear. <i>Journal of Orthopaedic Research</i> , 2012, 30, 973-981.	1.2	40
108	Smad8/BMP2â€™engineered mesenchymal stem cells induce accelerated recovery of the biomechanical properties of the achilles tendon. <i>Journal of Orthopaedic Research</i> , 2012, 30, 1932-1939.	1.2	37



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109	Computer assisted reconstruction of complex proximal humerus fractures for preoperative planning. <i>Medical Image Analysis</i> , 2012, 16, 704-720.	7.0	58
110	Embossing of a screw thread and TCP granules enhances the fixation strength of compressed ACL grafts with interference screws. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2012, 20, 268-274.	2.3	8
111	Paracrine Interactions between Mesenchymal Stem Cells Affect Substrate Driven Differentiation toward Tendon and Bone Phenotypes. <i>PLoS ONE</i> , 2012, 7, e31504.	1.1	63
112	Tensile Mechanical Characterization of Cell Stiffness Improves Correlation to Metastatic Potential in Models of Osteosarcoma. <i>Biophysical Journal</i> , 2011, 100, 599a.	0.2	0
113	An Integrative Approach using Numerical Models to Bridge Spatiotemporal Interactions of Subcellular Processes: Cell Spreading. <i>Biophysical Journal</i> , 2011, 100, 611a-612a.	0.2	0
114	Small hook thread (Quill) and soft felt internal splint to increase the primary repair strength of lacerated rabbit Achilles tendons: Biomechanical analysis and considerations for hand surgery. <i>Clinical Biomechanics</i> , 2011, 26, 626-631.	0.5	12
115	In vitro assessments of reverse glenoid stability using displacement gages are misleading – Recommendations for accurate measurements of interface micromotion. <i>Clinical Biomechanics</i> , 2011, 26, 917-922.	0.5	14
116	Mechanical response of individual collagen fibrils in loaded tendon as measured by atomic force microscopy. <i>Journal of Structural Biology</i> , 2011, 176, 9-15.	1.3	52
117	Osteochondral glenoid allograft for biologic resurfacing of the glenoid: biomechanical comparison of novel design concepts. <i>Journal of Shoulder and Elbow Surgery</i> , 2011, 20, 909-916.	1.2	14
118	Suitability of Thiel embalmed tendons for biomechanical investigation. <i>Annals of Anatomy</i> , 2011, 193, 237-241.	1.0	74
119	A novel method for assessing adherent single-cell stiffness in tension: design and testing of a substrate-based live cell functional imaging device. <i>Biomedical Microdevices</i> , 2011, 13, 291-301.	1.4	32
120	Structure of retracted tendons after staged repair following continuous traction. <i>Knee Surgery, Sports Traumatology, Arthroscopy</i> , 2011, 19, 2131-2137.	2.3	14
121	Elastography: modality-specific approaches, clinical applications, and research horizons. <i>Skeletal Radiology</i> , 2011, 40, 389-397.	1.2	102
122	Equivalent stiffness after glycosaminoglycan depletion in tendon – an ultra-structural finite element model and corresponding experiments. <i>Journal of Theoretical Biology</i> , 2011, 268, 77-83.	0.8	96
123	Helical Cutting as a New Method for Tendon-Lengthening in Continuity. <i>Journal of Bone and Joint Surgery - Series A</i> , 2011, 93, 733-738.	1.4	4
124	Misalignment of Total Ankle Components Can Induce High Joint Contact Pressures. <i>Journal of Bone and Joint Surgery - Series A</i> , 2010, 92, 1179-1187.	1.4	159
125	Automated muscle wrapping using finite element contact detection. <i>Journal of Biomechanics</i> , 2010, 43, 1931-1940.	0.9	20
126	A novel concept for scaffold-free vessel tissue engineering: Self-assembly of microtissue building blocks. <i>Journal of Biotechnology</i> , 2010, 148, 46-55.	1.9	162



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127	Biochemical and biomechanical gradients for directed bone marrow stromal cell differentiation toward tendon and bone. <i>Biomaterials</i> , 2010, 31, 7695-7704.	5.7	137
128	Collagen fibril morphology and mechanical properties of the Achilles tendon in two inbred mouse strains. <i>Journal of Anatomy</i> , 2010, 216, 724-731.	0.9	48
129	Cytoskeleton reorganization of spreading cells on micro-patterned islands: a functional model. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010, 368, 2629-2652.	1.6	28
130	Biomechanical consequences of first metatarsal osteotomy in treating hallux valgus. <i>Clinical Biomechanics</i> , 2010, 25, 721-727.	0.5	25
131	Genetically Modified Mesenchymal Stem Cells Induce Mechanically Stable Posterior Spine Fusion. <i>Tissue Engineering - Part A</i> , 2010, 16, 3679-3686.	1.6	50
132	Functional Fibered Confocal Microscopy: A Promising Tool for Assessing Tendon Regeneration. <i>Tissue Engineering - Part C: Methods</i> , 2009, 15, 485-491.	1.1	14
133	An Analytical Model for Elucidating Tendon Tissue Structure and Biomechanical Function from in vivo Cellular Confocal Microscopy Images. <i>Cells Tissues Organs</i> , 2009, 190, 111-119.	1.3	19
134	Numerical modelling of the shoulder for clinical applications. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2009, 367, 2095-2118.	1.6	32
135	Static and dynamic human flexor tendon-pulley interaction. <i>Journal of Biomechanics</i> , 2009, 42, 1856-1861.	0.9	8
136	Local strain measurement reveals a varied regional dependence of tensile tendon mechanics on glycosaminoglycan content. <i>Journal of Biomechanics</i> , 2009, 42, 1547-1552.	0.9	101
137	Friction between finger flexor tendons and the pulley system in the crimp grip position. <i>Clinical Biomechanics</i> , 2009, 24, 20-25.	0.5	24
138	Evidence against proteoglycan mediated collagen fibril load transmission and dynamic viscoelasticity in tendon. <i>Matrix Biology</i> , 2009, 28, 503-510.	1.5	135
139	Influence of component positioning on impingement in conventional total shoulder arthroplasty. <i>Clinical Biomechanics</i> , 2008, 23, 175-183.	0.5	68
140	A Comprehensive Renal Injury Concept Based on a Validated Finite Element Model of the Human Abdomen. <i>Journal of Trauma</i> , 2007, 62, 1240-1249.	2.3	10
141	Mechanical Characterization of the Liver Capsule and Parenchyma. <i>Lecture Notes in Computer Science</i> , 2006, , 150-158.	1.0	41
142	Functional microimaging: an integrated approach for advanced bone biomechanics and failure analysis. , 2006, , .		1
143	Comparing the Biomechanical Response of Human and Porcine Kidneys to Blunt Trauma. <i>Journal of Trauma</i> , 2006, 60, 885-887.	2.3	10
144	Kidney Injury: An Experimental Investigation of Blunt Renal Trauma. <i>Journal of Trauma</i> , 2006, 60, 880-884.	2.3	15

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145	Microstructural insight into pedestrian pelvic fracture as assessed by high-resolution computed tomography. <i>Journal of Biomechanics</i> , 2006, 39, 2709-2713.	0.9	9
146	Analysis of the Biomechanical Response of Kidneys Under Blunt Impact. <i>Traffic Injury Prevention</i> , 2006, 7, 171-181.	0.6	11
147	Endoscopic cellular microscopy for in vivo biomechanical assessment of tendon function. <i>Journal of Biomedical Optics</i> , 2006, 11, 064010.	1.4	21
148	Strain energy density as a rupture criterion for the kidney: impact tests on porcine organs, finite element simulation, and a baseline comparison between human and porcine tissues. <i>Journal of Biomechanics</i> , 2005, 38, 993-1001.	0.9	64
149	Strain-rate dependent material properties of the porcine and human kidney capsule. <i>Journal of Biomechanics</i> , 2005, 38, 1011-1021.	0.9	106
150	The creation of a high-fidelity finite element model of the kidney for use in trauma research. <i>Computer Animation and Virtual Worlds</i> , 2002, 13, 53-64.	0.9	25
151	Measurement of muscle actions and foot reaction forces from crew members during entire working days on the International Space Station (ISS). <i>AIP Conference Proceedings</i> , 2000, , .	0.3	0
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